

Special Specification 4164

Outer Dolphin Repair



1. DESCRIPTION

This specification governs for the repair of damaged 14 and 19-pile dolphins. Repair includes removal and replacement of steel cylinder, removal of existing wire rope, re-bolt and re-wrap with wire rope as shown in the plans.

2. EQUIPMENT

Provide equipment necessary to complete the work. Operate all water going vessels, barges, etc., in accordance with United States Coast Guard regulations.

3. MATERIALS

Furnish new materials. Ensure all materials and construction methods conform to the details shown on the plans and the requirements of this Item. Materials may be referenced by the following list of standards.

3.1. ASTM International (ASTM):

- A153, Zinc Coating (Hot Dip) on Iron and Steel,
- A325, High-strength Bolts for Structure Steel joints,
- F738M, Stainless Steel Bolts,
- RR-C-271F Chain and Attachments, Carbon and Alloy Steel,
- A449, Quenched and Tempered Steel Bolts and studs, and

3.1.1. **Anchor Bolts, Nuts and Washers.** Meet the requirements of ASTM A325 or ASTM A449, size per manufacturer's recommendations and will be galvanized in accordance with ASTM A153.

3.1.2. **Wire rope.** Provide .75 in diameter wire rope cable for the dolphins that is galvanized 6 x 7 improved plow steel, right regular lay with fiber core (natural or synthetic). Supply 5/16 in x 5 in galvanized wire staples. Supply all other hardware, cable clamps, bolts, etc., which will also be galvanized, necessary to complete the work.

3.1.3. **Steel Cylinder.** Provide galvanized steel cylinder per details in the plan sheets for the dolphin specified. The 14 and 19-pile dolphins will require 6'-3 3/4" x 8' long cylinders.

4. WORK METHODS

Remove and replace steel cylinder and wire rope. Re-bolt and re-wrap dolphin with wire rope as shown on the plans. Dispose of all damaged material outside of the highway right of way at locations provided by the Contractor. The disposal site(s) will be approved by the engineer.

5. MEASUREMENT

This Item will be measured by the each for the removal and replacement of steel cylinders of the size specified, and the removal of wire rope, re-bolt and re-wrap with wire rope on each outer dolphin, as shown on the plans.

6. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for the removal and replacement of steel cylinders and the removal of wire rope, re-bolt and re-wrap with wire rope on each outer dolphin. This price is full compensation for all labor, machining, realignment and re-striking of piles, equipment, furnishing, installation and incidentals.